Welcome to STN International! Enter x:x

LOGINID:ssspta1600gxc

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

```
Welcome to STN International
NEWS 1
                Web Page URLs for STN Seminar Schedule - N. America
                 "Ask CAS" for self-help around the clock
NEWS
NEWS 3 SEP 09
                CA/CAplus records now contain indexing from 1907 to the
                present
                New pricing for EUROPATFULL and PCTFULL effective
NEWS 4
        AUG 05
                August 1, 2003
NEWS 5 AUG 13
                Field Availability (/FA) field enhanced in BEILSTEIN
NEWS 6 AUG 18 Data available for download as a PDF in RDISCLOSURE
NEWS 7 AUG 18
                Simultaneous left and right truncation added to PASCAL
NEWS 8 AUG 18
                FROSTI and KOSMET enhanced with Simultaneous Left and Righ
                Truncation
                Simultaneous left and right truncation added to ANABSTR
NEWS 9 AUG 18
NEWS 10 SEP 22 DIPPR file reloaded
NEWS 11 SEP 25 INPADOC: Legal Status data to be reloaded
NEWS 12 SEP 29 DISSABS now available on STN
NEWS 13 OCT 10 PCTFULL: Two new display fields added
NEWS EXPRESS OCTOBER 01 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
             MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
             AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
NEWS HOURS
             STN Operating Hours Plus Help Desk Availability
             General Internet Information
NEWS INTER
NEWS LOGIN
             Welcome Banner and News Items
             Direct Dial and Telecommunication Network Access to STN
NEWS PHONE
NEWS WWW
             CAS World Wide Web Site (general information)
```

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 14:08:10 ON 20 OCT 2003

=> file medline, agricola, caba, caplus, biosis, biotechno, uspatfull COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 0.21 0.21

FILE 'MEDLINE' ENTERED AT 14:08:27 ON 20 OCT 2003

FILE 'AGRICOLA' ENTERED AT 14:08:27 ON 20 OCT 2003

FILE 'CABA' ENTERED AT 14:08:27 ON 20 OCT 2003

```
COPYRIGHT (C) 2003 CAB INTERNATIONAL (CABI)
FILE 'CAPLUS' ENTERED AT 14:08:27 ON 20 OCT 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
FILE 'BIOSIS' ENTERED AT 14:08:27 ON 20 OCT 2003
COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC. (R)
FILE 'BIOTECHNO' ENTERED AT 14:08:27 ON 20 OCT 2003
COPYRIGHT (C) 2003 Elsevier Science B.V., Amsterdam. All rights reserved.
FILE 'USPATFULL' ENTERED AT 14:08:27 ON 20 OCT 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
=> s (gaxiola, r? or gaxiola r?)/au
            75 (GAXIOLA, R? OR GAXIOLA R?)/AU
L1
=> s (fink, g? or fink g?)/au
         3459 (FINK, G? OR FINK G?)/AU
L_2
=> s (alper, s? or alper s?)/au
           682 (ALPER, S? OR ALPER S?)/AU
=> s 11 and 12 and 13
           14 L1 AND L2 AND L3
L4
=> duplicate remove 14
DUPLICATE PREFERENCE IS 'MEDLINE, AGRICOLA, CABA, CAPLUS, BIOSIS, BIOTECHNO,
USPATFULL'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L4
              4 DUPLICATE REMOVE L4 (10 DUPLICATES REMOVED)
=> d 15 1-4 ti
     ANSWER 1 OF 4 USPATFULL on STN
L5
ΤI
       Proton transporters and uses in plants
     ANSWER 2 OF 4
                       MEDLINE on STN
                                                        DUPLICATE 1
L5
     Drought- and salt-tolerant plants result from overexpression of the AVP1
TI
     H+-pump.
     ANSWER 3 OF 4 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
L5
     Increased size, salt and drought tolerance in A. thaliana overexpressing
TI
     AVP1 vacuolar H+- pyrophosphatase.
L5
     ANSWER 4 OF 4
                       MEDLINE on STN
                                                        DUPLICATE 2
TТ
     The Arabidopsis thaliana proton transporters, AtNhx1 and Avp1, can
     function in cation detoxification in yeast.
=> d 15 1-4 bib
L5
     ANSWER 1 OF 4 USPATFULL on STN
       2002:315970 USPATFULL
AN
       Proton transporters and uses in plants
TI
       Gaxiola, Roberto A., Mansfield Center, CT, UNITED STATES
IN
         Fink, Gerald R., Chestnut Hill, MA, UNITED STATES
         Alper, Seth L., Boston, MA, UNITED STATES
       Whitehead Institute for Biomedical Research, Cambridge, MA, UNITED
PA
       STATES, 02142 (U.S. corporation)
       US 2002178464
                        A1 20021128
PI
```

ΑI

US 2001-834998

A1

20010413 (9)

Continuation of Ser. No. US 2000-644039, filed on 22 Aug 2000, ABANDONED RTIT PRAI US 1999~164808P 19991110 (60) DT Utility FS APPLICATION HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA ROAD, P.O. BOX LREP 9133, CONCORD, MA, 01742-9133 CLMN Number of Claims: 76 ECL Exemplary Claim: 1 DRWN 3 Drawing Page(s) LN.CNT 1543 CAS INDEXING IS AVAILABLE FOR THIS PATENT. L5 ANSWER 2 OF 4 MEDLINE on STN DUPLICATE 1 ΑN 2001542872 MEDLINE DN 21457337 PubMed ID: 11572991 Drought- and salt-tolerant plants result from overexpression of the AVP1 TTH+-pump. AU Gaxiola R A; Li J; Undurraga S; Dang L M; Allen G J; Alper S L; Fink G R Whitehead Institute for Biomedical Research, Massachusetts Institute of CS Technology, 9 Cambridge Center, Cambridge, MA 02142-1479, USA.. roberto.gaxiola@uconn.edu NC DK34854 (NIDDK) DK43495 (NIDDK) SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (2001 Sep 25) 98 (20) 11444-9. Journal code: 7505876. ISSN: 0027-8424. United States CY DTJournal; Article; (JOURNAL ARTICLE) LAEnglish FS Priority Journals EM200112 ED Entered STN: 20011010 Last Updated on STN: 20020122 Entered Medline: 20011204 ANSWER 3 OF 4 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN L52003:41123 BIOSIS ANPREV200300041123 DNIncreased size, salt and drought tolerance in A. thaliana overexpressing TTAVP1 vacuolar H+- pyrophosphatase. Fink, Gerald R. [Reprint Author]; Alper, Seth L.; AU Gaxiola, Roberto A.; Li, Jisheng; Undurraga, Soledad Whitehead Institute M.I.T., Cambridge, MA, USA CS roberto.gaxiola@uconn.edu Plant Biology (Rockville), (2001) Vol. 2001, pp. 85. print. SO Meeting Info.: Joint Annual Meetings of the American Society of Plant Biologists and the Canadian Society of Plant Physiologists. Providence, Rhode Island, USA. July 21-25, 2001. American Society of Plant Biologists; Canadian Society of Plant Physiologists. DTConference; (Meeting) Conference; Abstract; (Meeting Abstract) LAEnglish ED Entered STN: 15 Jan 2003 Last Updated on STN: 15 Jan 2003 ANSWER 4 OF 4 MEDLINE on STN DUPLICATE 2 L51999145575 MEDLINE ANDΝ 99145575 PubMed ID: 9990049 The Arabidopsis thaliana proton transporters, AtNhx1 and Avp1, can TIfunction in cation detoxification in yeast. Gaxiola R A; Rao R; Sherman A; Grisafi P; Alper S L; ΑU Fink G R

Whitehead Institute for Biomedical Research, Massachusetts Institute of

Technology, 9 Cambridge Center, Cambridge, MA 02142-1479, USA.

CS

```
NC
    DK43495 (NIDDK)
     DK54214 (NIDDK)
     GM52414 (NIGMS)
    PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
SO
     AMERICA, (1999 Feb 16) 96 (4) 1480-5.
     Journal code: 7505876. ISSN: 0027-8424.
CY
     United States
     Journal; Article; (JOURNAL ARTICLE)
DT
LA
    English
FS
     Priority Journals
     GENBANK-AF106324
OS
EM
     199903
     Entered STN: 19990402
ED
     Last Updated on STN: 19990402
     Entered Medline: 19990325
=> d his
     (FILE 'HOME' ENTERED AT 14:08:10 ON 20 OCT 2003)
     FILE 'MEDLINE, AGRICOLA, CABA, CAPLUS, BIOSIS, BIOTECHNO, USPATFULL'
     ENTERED AT 14:08:27 ON 20 OCT 2003
             75 S (GAXIOLA, R? OR GAXIOLA R?) /AU
L1
           3459 S (FINK, G? OR FINK G?)/AU
L2
L3
            682 S (ALPER, S? OR ALPER S?)/AU
             14 S L1 AND L2 AND L3
L4
              4 DUPLICATE REMOVE L4 (10 DUPLICATES REMOVED)
L_5
=> s 11 or 12 or 13
          4165 L1 OR L2 OR L3
1.6
=> s 16 not 14
          4151 L6 NOT L4
L7
=> s 17 and plant
           165 L7 AND PLANT
T.8
=> s vacuolar(w)pyrophosphatase
           95 VACUOLAR (W) PYROPHOSPHATASE
L9
=> s antiporter
        10498 ANTIPORTER
L10
=> s 19 or 110
        10584 L9 OR L10
T<sub>1</sub>11
=> s 18 and 111
L12
            10 L8 AND L11
=> duplicate remove 112
DUPLICATE PREFERENCE IS 'MEDLINE, AGRICOLA, CABA, CAPLUS, BIOSIS, BIOTECHNO,
USPATFULL'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L12
              5 DUPLICATE REMOVE L12 (5 DUPLICATES REMOVED)
L13
=> d 113 1-5 ti
L13 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN
     Enhanced meristematic activity and competence by overexpression of
     tonoplast pyrophosphatase
```

L13 ANSWER 2 OF 5 USPATFULL on STN

```
Methods for imparting desirable phenotypic traits, including drought,
TI
       freeze, and high salt tolerance and methods for increasing seed
       production
     ANSWER 3 OF 5
                        MEDLINE on STN
L13
     Genetic manipulation of vacuolar proton pumps and transporters.
     ANSWER 4 OF 5 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
L13
     Over-expression of the vacuolar H+-pump AVP1 positively affects growth and
TI
     development in Arabidopsis.
    ANSWER 5 OF 5
                         MEDLINE on STN
                                                             DUPLICATE 1
L13
     CAX1, an H+/Ca2+ antiporter from Arabidopsis.
=> d l13 1-5 bib
L13 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN
     2002:157478 CAPLUS
AN
     136:197193
DN
     Enhanced meristematic activity and competence by overexpression of
TT
     tonoplast pyrophosphatase
     Gaxiola, Roberto A.
IN
     University of Connecticut, USA; Whitehead Institute
PA
     PCT Int. Appl., 76 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 2
                       KIND DATE
                                              APPLICATION NO. DATE
     PATENT NO.
     _____ ___ ___
                              _____
                                               _____
                                                                20010324
                       A1 20020228
                                              WO 2001-US9548
     WO 2002015674
PΙ
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
              HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
              YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
              DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                               WO 2000-US30955 20001110
                               20010517
                        A1
     WO 2001033945
                               20020725
     WO 2001033945
                         C1
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
              HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
              LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
              YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
              DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
              BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                             AU 2001-50974
                                                                20010324
     AU 2001050974
                         Α5
                               20020304
                                               EP 2001-924311
                                                                 20010324
                         A1
                               20030604
              AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                               US 2001-934088
                                                                  20010820
     US 2002023282
                         Α1
                               20020221
                                               WO 2001-US41806 20010820
     WO 2002016558
                               20020228
                         Α1
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
              RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
              UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
```

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,

```
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                           AU 2001-85459
                                                            20010820
                      A5
                            20020304
    AU 2001085459
                            20030604
                                           EP 2001-964622
                                                            20010820
    EP 1315795
                       Α1
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                            20000818
PRAI US 2000-226223P P
                            20000822
                       Α2
    US 2000-644039
                      W
                            20001110
    WO 2000-US30955
                      Ρ
    US 1999-164808P
                            19991110
                       W
                            20010324
    WO 2001-US9548
                     W
                            20010820
     WO 2001-US41806
              THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 2
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 2 OF 5 USPATFULL on STN
       2002:38560 USPATFULL
AN
       Methods for imparting desirable phenotypic traits, including drought,
TI
       freeze, and high salt tolerance and methods for increasing seed
       production
       Gaxiola, Roberto A., Mansfield Center, CT, UNITED STATES
IN
                               20020221
PΙ
       US 2002023282
                        A1
                               20010820 (9)
       US 2001-934088
                         A1
ΑI
                           20000818 (60)
       US 2000-226223P
PRAI
       Utility
DT
       APPLICATION
FS
       Cummings & Lockwood, Granite Square, 700 State Street, P.O. Box 1960,
       New Haven, CT, 06509-1960
       Number of Claims: 32
CLMN
ECL
       Exemplary Claim: 1
       14 Drawing Page(s)
DRWN
LN.CNT 1030
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L13 ANSWER 3 OF 5
                       MEDLINE on STN
                    MEDLINE
AN
     2002370399
                PubMed ID: 12114553
DN
     22111121
     Genetic manipulation of vacuolar proton pumps and transporters.
TI
     Gaxiola Roberto A; Fink Gerald R; Hirschi Kendal D
ΑU
     College of Agriculture and Natural Resources, Department of Plant Science,
CS
     University of Connecticut, Storrs 06269, USA.. roberto.gaxiola@uconn.edu
NC
     1R01 GM57427 (NIGMS)
     PLANT PHYSIOLOGY, (2002 Jul) 129 (3) 967-73. Ref: 42
SO
     Journal code: 0401224. ISSN: 0032-0889.
     United States
CY
     Journal; Article; (JOURNAL ARTICLE)
DT
     General Review; (REVIEW)
     (REVIEW, TUTORIAL)
     English
LA
FS
     Priority Journals
EΜ
     200210
     Entered STN: 20020713
ED
     Last Updated on STN: 20021029
     Entered Medline: 20021028
L13 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
AN
     2002:610112 BIOSIS
     PREV200200610112
DN
     Over-expression of the vacuolar H+-pump AVP1 positively affects growth and
TΙ
     development in Arabidopsis.
     Li, Jisheng [Reprint author]; Gaxiola, Roberto A. [Reprint
AU
     author]
     Department of Plant Science, University of Connecticut, Storrs, CT, USA
CS
     jisheng.li@uconn.edu
```

Plant Biology (Rockville), (2002) Vol. 2002, pp. 95-96. print.

SO

```
Meeting Info.: Annual Meeting of the American Society of Plant Biologists
     on Plant Biology. Denver, CO, USA. August 03-07, 2002. American Society of
     Plant Biologists.
DТ
     Conference; (Meeting)
     Conference; Abstract; (Meeting Abstract)
     English
LΑ
     Entered STN: 27 Nov 2002
ED
     Last Updated on STN: 27 Nov 2002
                                                        DUPLICATE 1
L13 ANSWER 5 OF 5
                      MEDLINE on STN
     96323302 MEDLINE
AN
     96323302 PubMed ID: 8710949
DN
     CAX1, an H+/Ca2+ antiporter from Arabidopsis.
TI
     Hirschi K D; Zhen R G; Cunningham K W; Rea P A; Fink G R
ΑU
     Whitehead Institute for Biomedical Research, Nine Cambridge Center, MA
CS
     02142, USA.
     PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
SO
     AMERICA, (1996 Aug 6) 93 (16) 8782-6.
     Journal code: 7505876. ISSN: 0027-8424.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LA
     English
FS
     Priority Journals
     GENBANK-D15647; GENBANK-P31801; GENBANK-U36603; GENBANK-U57411;
OS
     GENBANK-U57412
ΕM
     199609
ED
     Entered STN: 19960919
     Last Updated on STN: 19960919
     Entered Medline: 19960912
=> d his
     (FILE 'HOME' ENTERED AT 14:08:10 ON 20 OCT 2003)
     FILE 'MEDLINE, AGRICOLA, CABA, CAPLUS, BIOSIS, BIOTECHNO, USPATFULL'
     ENTERED AT 14:08:27 ON 20 OCT 2003
L1
            75 S (GAXIOLA, R? OR GAXIOLA R?)/AU
           3459 S (FINK, G? OR FINK G?)/AU
L2
            682 S (ALPER, S? OR ALPER S?)/AU
L3
             14 S L1 AND L2 AND L3
L4
              4 DUPLICATE REMOVE L4 (10 DUPLICATES REMOVED)
L5
L<sub>6</sub>
          4165 S L1 OR L2 OR L3
L7
           4151 S L6 NOT L4
            165 S L7 AND PLANT
L8
             95 S VACUOLAR (W) PYROPHOSPHATASE
L9
          10498 S ANTIPORTER
L10
          10584 S L9 OR L10
L11
L12
             10 S L8 AND L11
              5 DUPLICATE REMOVE L12 (5 DUPLICATES REMOVED)
L13
=> s 111 not 16
        10549 L11 NOT L6
L14
=> s l14 and plant
           540 L14 AND PLANT
L15
=> s (plant(s)transform?) or (plant(s)transgenic) or (plant(s)recombinant) or
(plant(s)(genetically(w)modified))
L16
         65977 (PLANT(S) TRANSFORM?) OR (PLANT(S) TRANSGENIC) OR (PLANT(S)
               RECOMBINANT) OR (PLANT(S) (GENETICALLY(W) MODIFIED))
=> s 115 and 116
            71 L15 AND L16
L17
```

=> duplicate remove 117

DUPLICATE PREFERENCE IS 'AGRICOLA, CABA, CAPLUS, BIOTECHNO, USPATFULL'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L17

L18 64 DUPLICATE REMOVE L17 (7 DUPLICATES REMOVED)

=> d l18 1-10 ti

L18 ANSWER 1 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
TI Na+/H+ antiporter with novel ion specificity from halotolerant
cyanobacterium Aphanothece halophytica, gene, and use in improving salt
tolerance of transgenic organisms

L18 ANSWER 2 OF 64 USPATFULL on STN
TI Genetic marker for spondyloepimetaphyseal dysplasia

L18 ANSWER 3 OF 64 USPATFULL on STN TI Minicell compositions and methods

L18 ANSWER 4 OF 64 USPATFULL on STN Minicell-based transformation

L18 ANSWER 5 OF 64 USPATFULL on STN TI Minicell-producing parent cells

L18 ANSWER 6 OF 64 USPATFULL on STN
TI Minicell-based rational drug design

L18 ANSWER 7 OF 64 USPATFULL on STN TI Target display on minicells

L18 ANSWER 8 OF 64 USPATFULL on STN

TI Modified tetracycline repressor protein compositions and methods of use

L18 ANSWER 9 OF 64 USPATFULL on STN TI Transporters and ion channels

L18 ANSWER 10 OF 64 USPATFULL on STN TI Minicell-based transfection

=> d 118 1 bib

L18 ANSWER 1 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:502372 CAPLUS

DN 139:80253

TI Na+/H+ antiporter with novel ion specificity from halotolerant cyanobacterium Aphanothece halophytica, gene, and use in improving salt tolerance of transgenic organisms

IN Takabe, Akihiro; Hibino, Takashi; Tanaka, Yoshito; Takabe, Tetsuko;
Nakamura, Tatsunosuke

PA Japan Science and Technology Corporation, Japan

SO Jpn. Kokai Tokkyo Koho, 26 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 2003180373 A2 20030702 JP 2001-390491 20011221
PRAI JP 2001-390491 20011221

L18 ANSWER 11 OF 64 USPATFULL on STN Minicells comprising membrane proteins L18 ANSWER 12 OF 64 USPATFULL on STN Methods and compositions for diagnosing and treating rheumatoid ΤI arthritis L18 ANSWER 13 OF 64 USPATFULL on STN Novel defense induced multi-drug resistance genes and uses thereof TТ L18 ANSWER 14 OF 64 USPATFULL on STN Libraries of expressible gene sequences TIL18 ANSWER 15 OF 64 USPATFULL on STN E. coli virulence determinants and methods of use thereof ТT L18 ANSWER 16 OF 64 USPATFULL on STN Libraries of expressible gene sequences TI L18 ANSWER 17 OF 64 USPATFULL on STN Nucleic acids, proteins, and antibodies TTL18 ANSWER 18 OF 64 USPATFULL on STN

L18 ANSWER 18 OF 64 USPATFULL on STN
TI Increasing salt tolerance in plants by overexpression of vacuolar cation-proton antiporters

L18 ANSWER 19 OF 64 USPATFULL on STN
TI Nucleic acids encoding 3-ketoacyl-ACP reductase from Moraxella catarrahalis

L18 ANSWER 20 OF 64 USPATFULL on STN
TI Nucleic acid and amino acid sequences relating to Enterococcus faecalis
for diagnostics and therapeutics

=> d 118 18 bib

L18 ANSWER 18 OF 64 USPATFULL on STN 2003:66605 USPATFULL AN Increasing salt tolerance in plants by overexpression of vacuolar TT cation-proton antiporters Blumwald, Eduardo, Davis, CA, UNITED STATES INApse, Maris, Davis, CA, UNITED STATES **A**1 20030306 PΙ US 2003046729 A1 US 2002-155535 20020524 (10) AΙ Continuation-in-part of Ser. No. US 1999-271584, filed on 18 Mar 1999, RLI PENDING PRAI US 1998-78474P 19980318 (60) US 1999-116111P 19990115 (60) DT Utility FS APPLICATION Michael R. Ward, Morrison & Foerster LLP, 425 Market Street, San LREP Francisco, CA, 94105-2842 CLMN Number of Claims: 13 Exemplary Claim: 1 DRWN 7 Drawing Page(s) LN.CNT 2482 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d l18 21-30 ti

L18 ANSWER 21 OF 64 USPATFULL on STN
TI Plant glucose-6-phosphate translocator

- L18 ANSWER 22 OF 64 USPATFULL on STN
- Nucleic acid sequences and expression system relating to Enterococcus faecium for diagnostics and therapeutics
- L18 ANSWER 23 OF 64 USPATFULL on STN
- Nucleic acid and amino acid sequences relating to Acinetobacter baumannii for diagnostics and therapeutics
- L18 ANSWER 24 OF 64 USPATFULL on STN
- TI Nucleic acid and amino acid sequences relating to pseudomonas aeruginosa for diagnostics and therapeutics
- L18 ANSWER 25 OF 64 USPATFULL on STN
- TI Polynucleotides, materials incorporating them, and methods for using them
- L18 ANSWER 26 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN
- TI Functional genomics of phosphate antiport systems of plastids
- L18 ANSWER 27 OF 64 CABA COPYRIGHT 2003 CABI on STN DUPLICATE 1
- TI Overexpression of a plasma membrane Na+/H+ antiporter gene improves salt tolerance in Arabidopsis thaliana.
- L18 ANSWER 28 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 2
- TI Protein and DNA sequences of sos1 gene encoding putative Na+/H+ antiporter isolated from Arabidopsis thaliana related to salt tolerance in plants
- L18 ANSWER 29 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
- TI Sequence homologs of Na+/H+ antiporters of Physcomitrella patens and their use in improving **plant** resistance to salt stress
- L18 ANSWER 30 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
- TI Full-length cDNA of Na+/H+ antiporter of Suaeda salsa (SsNHX1) and use thereof to improve salt resistance in transgenic plants
- => d 118 27,28,29,30 bib
- L18 ANSWER 27 OF 64 CABA COPYRIGHT 2003 CABI on STN DUPLICATE 1
- AN 2003:41062 CABA
- DN 20033007138
- TI Overexpression of a plasma membrane Na+/H+ antiporter gene improves salt tolerance in Arabidopsis thaliana
- AU Shi, H. Z.; Lee, B. H.; Wu, S. J.; Zhu, J. K.
- CS Department of Plant Sciences, University of Arizona, Tucson, AZ 85721, USA.
- SO Nature Biotechnology, (2003) Vol. 21, No. 1, pp. 81-85. 44 ref. Publisher: Nature America, Inc. New York ISSN: 1087-0156
- CY United States
- DT Journal
- LA English
- L18 ANSWER 28 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 2
- AN 2002:488282 CAPLUS
- DN 137:58609
- TI Protein and DNA sequences of sosl gene encoding putative Na+/H+ antiporter isolated from Arabidopsis thaliana related to salt tolerance in plants
- IN Zhu, Jian-kang; Shi, Huazhong; Ishitani, Manabu; Stevenson, Becky
- PA The Arizona Board of Regents, USA
- SO U.S. Pat. Appl. Publ., 21 pp. CODEN: USXXCO
- DT Patent

```
English
LΑ
FAN.CNT 1
                                          APPLICATION NO. DATE
     PATENT NO. KIND DATE
     _____
                                           _____
                                                             -----
                                           US 2001-824734 20010404
     US 2002083485
                      A1 20020627
PRAI US 2000-194648P P 20000404
L18 ANSWER 29 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
     2002:157828 CAPLUS
AN
DN
     136:213804
     Sequence homologs of Na+/H+ antiporters of Physcomitrella patens and their
TI
     use in improving plant resistance to salt stress
     Da Costa e Silva, Oswaldo; Ishitani, Manabu
IN
PΑ
     Basf Plant Science G.m.b.H., Germany
SO
     PCT Int. Appl., 203 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO. KIND DATE
                                          APPLICATION NO. DATE
     ______
                                           _____
     WO 2002016423 A2 20020228
                                           WO 2001-US26550 20010824
PΙ
     WO 2002016423
                      A3 20030626
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                     A5 20020304 AU 2001-88404 20010824
A2 20030903 EP 2001-968130 20010824
     AU 2001088404
     EP 1339849
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 2000-227974P P 20000825
                            20010824
     WO 2001-US26550
                     W
     ANSWER 30 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
L18
AN
     2003:398913 CAPLUS
DN
     138:363880
     Full-length cDNA of Na+/H+ antiporter of Suaeda salsa (SsNHX1)
TI
     and use thereof to improve salt resistance in transgenic plants
     Zhao, Yanxiu; Ma, Xiuling; Sun, Yufei; Zhang, Hui
IN
PΑ
     Shandong Normal Univ., Peop. Rep. China
     Faming Zhuanli Shenging Gongkai Shuomingshu, 16 pp.
SO
     CODEN: CNXXEV
DT
     Patent
     Chinese
LΑ
FAN.CNT 1
     PATENT NO. KIND DATE
                                           APPLICATION NO. DATE
     PATENT NO. KIND DATE
                                           -----
                      A 20020710
     CN 1357626
                                           CN 2001-123563 20010802
                          20010802
PRAI CN 2001-123563
=> d l18 31-40 ti
   ANSWER 31 OF 64 USPATFULL on STN
       Novel Polynucleotides
TI
L18 ANSWER 32 OF 64 USPATFULL on STN
       Stress-regulated genes of plants, transgenic plants containing same, and
TI
```

methods of use

```
L18 ANSWER 33 OF 64 USPATFULL on STN
      Nucleic acids, proteins, and antibodies
L18 ANSWER 34 OF 64 USPATFULL on STN
      Transgenic plants with increased calcium stores
TI
L18 ANSWER 35 OF 64 USPATFULL on STN
      Sodium/proton antiporter gene
TT
    ANSWER 36 OF 64 USPATFULL on STN
L18
      Nucleic acids, proteins and antibodies
TT
L18 ANSWER 37 OF 64 USPATFULL on STN
      Transgenic plants incorporating traits of zostera marina
TТ
    ANSWER 38 OF 64 USPATFULL on STN
T<sub>1</sub>1.8
      Liquidambar styraciflua AGAMOUS (LSAG) gene
TI
     ANSWER 39 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN
L18
     Salinity-induced glutathione synthesis in Brassica napus
TI
     ANSWER 40 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN
L18
     A heat treatment induced the expression of a Na.sup.+/H.sup.+ antiport
TI
     gene (cNHX1) in citrus fruit
=> d l18 32,35,40 bib
L18 ANSWER 32 OF 64 USPATFULL on STN
       2002:287515 USPATFULL
       Stress-regulated genes of plants, transgenic plants containing same, and
TI
       methods of use
       Harper, Jeffrey F., Del Mar, CA, UNITED STATES
IN
       Kreps, Joel, Carlsbad, CA, UNITED STATES
       Wang, Xun, San Diego, CA, UNITED STATES
       Zhu, Tong, San Diego, CA, UNITED STATES
                         A1 20021031
       US 2002160378
                               20010824 (9)
      US 2001-938842
                         A1
ΑT
       US 2000-227866P
                          20000824 (60)
PRAI
       US 2001-264647P
                           20010126 (60)
       US 2001-300111P
                           20010622 (60)
DT
       Utility
FS
       APPLICATION
       Lisa A. Haile, J.D., Ph.D., GRAY CARY WARE & FREIDENRICH LLP, Suite
LREP
       1600, 4365 Executive Drive, San Diego, CA, 92121-2189
       Number of Claims: 79
CLMN
       Exemplary Claim: 1
ECL
DRWN
      No Drawings
LN.CNT 10399
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 35 OF 64 USPATFULL on STN
L18
AN
       2002:158873 USPATFULL
       Sodium/proton antiporter gene
TI
       Fukuda, Atsunori, Ibaraki, JAPAN
IN
       Tanaka, Yoshiyuki, Ibaraki, JAPAN
       US 2002083487
                          A1
                               20020627
PΙ
       US 2001-888035
                        A1
                               20010622 (9)
AΙ
       Continuation-in-part of Ser. No. WO 1999-JP7224, filed on 22 Dec 1999,
RLI
       UNKNOWN
       JP 1998-365604
                           19981222
PRAI
       Utility
DT
       APPLICATION
FS
       David R. Saliwanchik, Saliwanchik, Lloyd & Saliwanchik, Suite A-1, 2421
```

LREP

N.W. 41st Street, Gainesville, FL, 32606-6669

CLMN Number of Claims: 28

ECL Exemplary Claim: 1

DRWN 6 Drawing Page(s)

LN.CNT 1066

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

- L18 ANSWER 40 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN
- AN 2002:34693241 BIOTECHNO
- TI A heat treatment induced the expression of a Na.sup.+/H.sup.+ antiport gene (cNHX1) in citrus fruit
- AU Porat R.; Pavoncello D.; Ben-Hayyim G.; Lurie S.
- CS R. Porat, Dept. Postharvest Sci. Fresh Produce, Agricultural Res. Organization (ARO), Volcani Center, P. O. Box 6, Bet Dagan 50250, Israel. E-mail: rporat@volcani.agri.gov.il
- SO Plant Science, (2002), 162/6 (957-963), 21 reference(s) CODEN: PLSCE4 ISSN: 0168-9452
- PUI S0168945202000419
- DT Journal; Article
- CY Ireland
- LA English
- SL English

=> d l18 41-50 ti

- L18 ANSWER 41 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN
- TI Regulation of expression of the vacuolar Na.sup.+/H.sup.+
 antiporter gene AtNHX1 by salt stress and abscisic acid
- L18 ANSWER 42 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN
- TI The putative plasma membrane NA.sup.+/H.sup.+ antiporter SOS1 controls long-distance NA.sup.+ transport in plants
- L18 ANSWER 43 OF 64 CABA COPYRIGHT 2003 CABI on STN DUPLICATE 3
- TI Introduction of a Na+/H+ antiporter gene from Atriplex gmelini confers salt tolerance to rice.
- L18 ANSWER 44 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
- TI Stress-resistant oversized transgenic plants capable of growing in salinized soil
- L18 ANSWER 45 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
- TI Plant Na+/H+ antiporter genes regulating vacuolar pH and use in flower color regulation
- L18 ANSWER 46 OF 64 USPATFULL on STN
- TI Methods and compositions for the introduction of molecules into cells
- L18 ANSWER 47 OF 64 USPATFULL on STN
- TI Methods for generating and screening novel metabolic pathways
- L18 ANSWER 48 OF 64 CABA COPYRIGHT 2003 CABI on STN DUPLICATE 4
- TI A transcriptional regulator of a pristinamycin resistance gene in Streptomyces coelicolor.
- L18 ANSWER 49 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
- TI Atriplex gmelini Na+/H+ antiporter, encoding cDNA, and transgenic plants with improved salt tolerance
- L18 ANSWER 50 OF 64 USPATFULL on STN
- TI Unique nucleotide and amino acid sequence and uses thereof

```
L18
      ANSWER 41 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN
AN
      2002:35141023
                     BIOTECHNO
TI
      Regulation of expression of the vacuolar Na.sup.+/H.sup.+
      antiporter gene AtNHX1 by salt stress and abscisic acid
ΑU
      Shi H.; Zhu J.-K.
      J.-K. Zhu, Department of Plant Sciences, University of Arizona, Tucson,
CS
      AZ 85721, United States.
      E-mail: jkzhu@ag.arizona.edu
SO
      Plant Molecular Biology, (2002), 50/3 (543-550), 33 reference(s)
      CODEN: PMBIDB ISSN: 0167-4412
DT
      Journal; Article
CY
      Netherlands
      English
LΆ
      English
_{
m SL}
L18
      ANSWER 42 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN
                     BIOTECHNO
AN
      2002:34271299
TI
      The putative plasma membrane NA.sup.+/H.sup.+ antiporter SOS1
      controls long-distance NA.sup.+ transport in plants
ΑU
      Shi H.; Quintero F.J.; Pardo J.M.; Zhu J.-K.
CS
      J.-K. Zhu, Department of Plant Sciences, University of Arizona, Tucson,
      AZ 85721, United States.
      E-mail: jkzhu@ag.arizona.edu
SO
      Plant Cell, (2002), 14/2 (465-477), 39 reference(s)
      CODEN: PLCEEW ISSN: 1040-4651
DT
      Journal; Article
CY
      United States
LΑ
      English
_{
m SL}
      English
     ANSWER 43 OF 64 CABA COPYRIGHT 2003 CABI ON STN DUPLICATE 3
L18
     2003:31195 CABA
AN
DN
     20033002324
TI
     Introduction of a Na+/H+ antiporter gene from Atriplex gmelini
     confers salt tolerance to rice
     Ohta, M.; Hayashi, Y.; Nakashima, A.; Hamada, A.; Tanaka, A.; Nakamura,
ΑU
     T.; Hayakawa, T.
CS
     Plantech Research Institute, 1000 Kamoshida-cho, Aoba-ku, Yokohama,
     Kanagawa 227-0033, Japan.
     FEBS Letters, (2002) Vol. 532, No. 3, pp. 279-282. 29 ref.
SO
     Publisher: Elsevier Science B.V. Amsterdam
     ISSN: 0014-5793
CY
     Netherlands Antilles
DT
     Journal
LA
     English
L18
    ANSWER 44 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
ΑN
     2001:359727 CAPLUS
DN
     134:364258
ΤI
     Stress-resistant oversized transgenic plants capable of growing in
     salinized soil
IN
     Gaiola, Roberto A.
     University of Connecticut, USA; Whitehead Institute
PA
so
     PCT Int. Appl., 68 pp.
     CODEN: PIXXD2
DT
     Patent
    English
LΑ
FAN.CNT 2
    PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
                            ~ - - - - - -
                                           -------
                    A1
PΙ
    WO 2001033945
                            20010517
                                           WO 2000-US30955 20001110
    WO 2001033945
                      C1
                            20020725
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
```

CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,

```
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                                      BR 2000-15636
       BR 2000015636
                                      20020709
                                                                                    20001110
                                Α
                                                           EP 2000-980337
                                                                                     20001110
                                        20020821
       EP 1231831
                                A1
             R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                        20030520
                                                            JP 2001-535966
       WO 2002015674
                                A1
                                        20020228
                                                            WO 2001-US9548
                                                                                     20010324
            W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
            RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                                     AU 2001-50974
                                                                                 20010324
       AU 2001050974
                              A5
                                     20020304
                                                           EP 2001-924311 20010324
       EP 1315410
                                A1
                                        20030604
                AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                  IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                     20021128
                                                      US 2001-834998
       US 2002178464
                              A1
                                                                                     20010413
                                                            US 2001-934088
       US 2002023282
                                A1
                                       20020221
                                                                                     20010820
                               A1
       WO 2002016558
                                      20020228
                                                           WO 2001-US41806 20010820
             W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                  CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
                  GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
                  RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
                  UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
            RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
                  BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
       AU 2001085459
                                       20020304
                                                     AU 2001-85459 20010820
                              A5
                                       20030604
                                                           EP 2001-964622 20010820
       EP 1315795
                                A1
                 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                  IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 1999-164808P
                                     19991110
                              P
       US 2000-226223P
                              P
                                       20000818
       US 2000-644039
                                Α
                                       20000822
       WO 2000-US30955
                                W
                                       20001110
                                W
       WO 2001-US9548
                                       20010324
       WO 2001-US41806
                                W
                                       20010820
                   THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 8
                   ALL CITATIONS AVAILABLE IN THE RE FORMAT
L18
      ANSWER 45 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
       2001:152845 CAPLUS
       134:203460
       Plant Na+/H+ antiporter genes regulating vacuolar pH
       and use in flower color regulation
       Iida, Shigeru; Tanaka, Sachiko; Inagaki, Yoshishige
       Suntory Limited, Japan
       PCT Int. Appl., 68 pp.
       CODEN: PIXXD2
       Patent
       Japanese
FAN.CNT 1
       PATENT NO.
                        KIND DATE
                                                            APPLICATION NO. DATE
       -----
                                                             _____
```

AN

DN TI

IN PΑ

SO

DT

PI WO 2001014560 A1 20010301 WO 2000-JP5722 20000824

W: AU, CA, JP, NZ, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

EP 1123977 A1 20010816 EP 2000-955003 20000824

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRAI JP 1999-236800 A 19990824

WO 2000-JP5722 W 20000824

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 49 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:388657 CAPLUS

DN 133:39095

TI Atriplex gmelini Na+/H+ antiporter, encoding cDNA, and transgenic plants with improved salt tolerance

IN Shono, Mariko; Hayakawa, Takahiko; Tanaka, Akira

PA Plant Engineering K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 2000157287 A2 20000613 JP 1999-261606 19990916

PRAI JP 1998-269504 A 19980924

=> d l18 51-60 ti

- L18 ANSWER 51 OF 64 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.

 (2003) on STN

 DUPLICATE 5
- TI Purification, properties, and molecular cloning of a novel Ca2+ -binding protein in radish vacuoles.
- L18 ANSWER 52 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
- TI Salt tolerance of a freshwater cyanobacterium Synechococcus sp. PCC 7943 transformed with Na+/H+ antiporter from Vibrio alginolyticus
- L18 ANSWER 53 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
- TI Cloning and expression of **plant** genes for glucose-6-phosphate-translocator and their use in altering starch and protein accumulation
- L18 ANSWER 54 OF 64 USPATFULL on STN
- TI Method for predicting the tendency of a protein to form amphiphilic .alpha..beta. structure
- L18 ANSWER 55 OF 64 USPATFULL on STN
- Method for producing DNA encoding cystic fibrosis transmembrane conductance regulator (CFTR) protein in E. coli
- L18 ANSWER 56 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN Expression of Arabidopsis CAX1 in tobacco: Altered calcium homeostasis and increased stress sensitivity
- ANSWER 57 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN Expression of nhaAv gene encoding Na.sup.+/H.sup.+ antiporter from Vibrio alginolyticus in a freshwater cyanobacterium Synechococcus sp. PCC 7942 confers lithium tolerance, but not sodium tolerance

- L18 ANSWER 58 OF 64 USPATFULL on STN
- TI Methods for generating and screening novel metabolic pathways
- L18 ANSWER 59 OF 64 USPATFULL on STN
- TI Methods for generating and screening novel metabolic pathways
- L18 ANSWER 60 OF 64 USPATFULL on STN
- TI Metabolic monitoring of cells in a microplate reader
- => d 118 52,57 bib
- L18 ANSWER 52 OF 64 CAPLUS COPYRIGHT 2003 ACS on STN
- AN 2001:499955 CAPLUS
- DN 136:163923
- TI Salt tolerance of a freshwater cyanobacterium Synechococcus sp. PCC 7943 transformed with Na+/H+ antiporter from Vibrio alginolyticus
- AU Kaku, Nobuo; Hibino, Takashi; Tanaka, Yoshito; Ishikawa, Hiroshi; Nakamura, Tatsunosuke; Takabe, Teruhiro
- CS Res. Inst., Meijo Univ., Japan
- SO Meijo Daigaku Sogo Kenkyusho Kiyo (2000), 5, 105-113 CODEN: MDSKF8
- PB Meijo Daigaku Sogo Kenkyusho
- DT Journal
- LA Japanese
- L18 ANSWER 57 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN
- AN 1999:29273303 BIOTECHNO
- TI Expression of nhaAv gene encoding Na.sup.+/H.sup.+ antiporter from Vibrio alginolyticus in a freshwater cyanobacterium Synechococcus sp. PCC 7942 confers lithium tolerance, but not sodium tolerance
- AU Kaku N.; Hibino T.; Tanaka Y.; Takabe T.; Nakamura T.; Takabe T.
- CS T. Takabe, Res. Institute of Meijo University, Department of Chemistry, Faculty of Science and Technology, Tenpaku-ku, Nagoya, Aichi 468-8502, Japan.
- SO Plant and Cell Physiology, (1999), 40/5 (557-564), 25 reference(s) CODEN: PCPHA5 ISSN: 0032-0781
- DT Journal; Article
- CY Japan
- LA English
- SL English
- => d 118 61-64 ti
- L18 ANSWER 61 OF 64 USPATFULL on STN
- TI Methods and therapeutic compositions for treating cystic fibrosis
- L18 ANSWER 62 OF 64 USPATFULL on STN
- TI Sodium ion binding proteins
- L18 ANSWER 63 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN
- TI Salt tolerance in plants and microorganisms: Toxicity targets and defense responses
- L18 ANSWER 64 OF 64 USPATFULL on STN
- TI Sodium ion binding proteins
- => d 118 63
- L18 ANSWER 63 OF 64 BIOTECHNO COPYRIGHT 2003 Elsevier Science B.V. on STN
- AN 1996:26118463 BIOTECHNO
- TI Salt tolerance in plants and microorganisms: Toxicity targets and defense responses

```
ΑU
       Serrano R.
CS
       Instituto de Biologia Molecular, Celular de Plantas, Univ Politecnica,
       CSIC, 46022 Valencia, Spain.
SO
       International Review of Cytology, (1996), 165/- (1-52)
      CODEN: IRCYAJ ISSN: 0074-7696
DT
      Journal; General Review
CY
      United States
LΑ
      English
ST.
      English
=> d his
      (FILE 'HOME' ENTERED AT 14:08:10 ON 20 OCT 2003)
     FILE 'MEDLINE, AGRICOLA, CABA, CAPLUS, BIOSIS, BIOTECHNO, USPATFULL'
     ENTERED AT 14:08:27 ON 20 OCT 2003
             75 S (GAXIOLA, R? OR GAXIOLA R?)/AU
L1
           3459 S (FINK, G? OR FINK G?)/AU
L2
            682 S (ALPER, S? OR ALPER S?)/AU
L3
L4
             14 S L1 AND L2 AND L3
L5
              4 DUPLICATE REMOVE L4 (10 DUPLICATES REMOVED)
L6
           4165 S L1 OR L2 OR L3
L7
           4151 S L6 NOT L4
L8
            165 S L7 AND PLANT
Ь9
             95 S VACUOLAR (W) PYROPHOSPHATASE
L10
          10498 S ANTIPORTER
L11
          10584 S L9 OR L10
L12
             10 S L8 AND L11
              5 DUPLICATE REMOVE L12 (5 DUPLICATES REMOVED)
L13
L14
          10549 S L11 NOT L6
L15
            540 S L14 AND PLANT
L16
          65977 S (PLANT(S)TRANSFORM?) OR (PLANT(S)TRANSGENIC) OR (PLANT(S)RECO
L17
             71 S L15 AND L16
L18
             64 DUPLICATE REMOVE L17 (7 DUPLICATES REMOVED)
=> s 19 and 110 and plant
             9 L9 AND L10 AND PLANT
=> duplicate remove 119
DUPLICATE PREFERENCE IS 'MEDLINE, CABA, CAPLUS, BIOSIS, BIOTECHNO, USPATFULL'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L19
L20
              5 DUPLICATE REMOVE L19 (4 DUPLICATES REMOVED)
=> d 120 1-5 ti
L20 ANSWER 1 OF 5 USPATFULL on STN
       Proton transporters and uses in plants
TT
L20
    ANSWER 2 OF 5 USPATFULL on STN
       Methods for imparting desirable phenotypic traits, including drought,
ΤI
       freeze, and high salt tolerance and methods for increasing seed
       production
L20 ANSWER 3 OF 5
                       MEDLINE on STN
     Increased vacuolar Na(+)/H(+) exchange activity in Salicornia bigelovii
     Torr. in response to NaCl.
L20
    ANSWER 4 OF 5
                       MEDLINE on STN
                                                        DUPLICATE 1
TΙ
     Vacuolar proton pyrophosphatase activity and pyrophosphate (PPi) in
     Toxoplasma gondii as possible chemotherapeutic targets.
    ANSWER 5 OF 5
L20
                      MEDLINE on STN
     Characterization of a vacuolar pyrophosphatase in
TI
```

Trypanosoma brucei and its localization to acidocalcisomes.

```
=> d 120 1-3 bib
L20 ANSWER 1 OF 5 USPATFULL on STN
       2002:315970 USPATFULL
AΝ
TΙ
       Proton transporters and uses in plants
TN
       Gaxiola, Roberto A., Mansfield Center, CT, UNITED STATES
       Fink, Gerald R., Chestnut Hill, MA, UNITED STATES
       Alper, Seth L., Boston, MA, UNITED STATES
PA
       Whitehead Institute for Biomedical Research, Cambridge, MA, UNITED
       STATES, 02142 (U.S. corporation)
PΤ
       US 2002178464
                          Α1
                                20021128
       US 2001-834998
AI
                          A1
                                20010413 (9)
       Continuation of Ser. No. US 2000-644039, filed on 22 Aug 2000, ABANDONED
RLI
PRAI
       US 1999-164808P
                          19991110 (60)
DT
       Utility
FS
       APPLICATION
LREP
       HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA ROAD, P.O. BOX
       9133, CONCORD, MA, 01742-9133
CLMN
       Number of Claims: 76
ECL
       Exemplary Claim: 1
DRWN
       3 Drawing Page(s)
LN.CNT 1543
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L20 ANSWER 2 OF 5 USPATFULL on STN
       2002:38560 USPATFULL
AN
TI
       Methods for imparting desirable phenotypic traits, including drought,
       freeze, and high salt tolerance and methods for increasing seed
       production
IN
       Gaxiola, Roberto A., Mansfield Center, CT, UNITED STATES
ΡI
       US 2002023282 A1
                               20020221
       US 2001-934088
                         A1
AΤ
                               20010820 (9)
       US 2000-226223P
                          20000818 (60)
PRAI
DT
       Utility
FS
       APPLICATION
       Cummings & Lockwood, Granite Square, 700 State Street, P.O. Box 1960,
       New Haven, CT, 06509-1960
       Number of Claims: 32
CLMN
ECL
       Exemplary Claim: 1
       14 Drawing Page(s)
DRWN
LN.CNT 1030
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                       MEDLINE on STN
L20 ANSWER 3 OF 5
AN
     2002234248
                    MEDLINE
     21968668 PubMed ID: 11971917
DN
     Increased vacuolar Na(+)/H(+) exchange activity in Salicornia bigelovii
     Torr. in response to NaCl.
ΑU
     Parks Graham E; Dietrich Margaret A; Schumaker Karen S
CS
     University of Arizona, Department of Plant Sciences, Tucson, AZ 85721,
     USA.
so
     JOURNAL OF EXPERIMENTAL BOTANY, (2002 May) 53 (371) 1055-65.
     Journal code: 9882906. ISSN: 0022-0957.
CY
     England: United Kingdom
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
     English
FS
     Priority Journals
EΜ
     200207
     Entered STN: 20020425
ED
     Last Updated on STN: 20020723
     Entered Medline: 20020722
```

(FILE 'HOME' ENTERED AT 14:08:10 ON 20 OCT 2003)

	FILE 'MEDLINE, AGRICOLA, CABA, CAPLUS, BIOSIS, BIOTECHN ENTERED AT 14:08:27 ON 20 OCT 2003	O, USPATFULL'
L1	75 S (GAXIOLA, R? OR GAXIOLA R?)/AU	
 L2	3459 S (FINK, G? OR FINK G?)/AU	
L3	682 S (ALPER, S? OR ALPER S?)/AU	
L4	14 S L1 AND L2 AND L3	
L5	4 DUPLICATE REMOVE L4 (10 DUPLICATES REMOVED)	
	4165 S L1 OR L2 OR L3	
	4151 S L6 NOT L4	
L8	165 S L7 AND PLANT	
L9	95 S VACUOLAR (W) PYROPHOSPHATASE	
L10	10498 S ANTIPORTER	
L11	10584 S L9 OR L10	
L12	10 S L8 AND L11	
L13	5 DUPLICATE REMOVE L12 (5 DUPLICATES REMOVED)	
L14	10549 S L11 NOT L6	
L15	540 S L14 AND PLANT	
L16	65977 S (PLANT(S)TRANSFORM?) OR (PLANT(S)TRANSGENIO	C) OR (PLANT(S)RECO
L17	71 S L15 AND L16	
L18	64 DUPLICATE REMOVE L17 (7 DUPLICATES REMOVED)	
L19	9 S L9 AND L10 AND PLANT	
L20	5 DUPLICATE REMOVE L19 (4 DUPLICATES REMOVED)	
. 1		
=> logoff		
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF		
LOGOFF? (Y)/N/HOLD:y COST IN U.S. DOLLARS SINCE FILE TOTAL		
COST		
	ENTRY	SESSION

80.65 80.86

STN INTERNATIONAL LOGOFF AT 14:19:49 ON 20 OCT 2003

FULL ESTIMATED COST